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10/642,678	08/19/2003	Stephen G. Holmes	NVID-065/00US	3501

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EXAMINER

SAUNDERS JR, JOSEPH

ART UNIT	PAPER NUMBER
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2615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/642,678

Applicant(s)

HOLMES ET AL.

Examiner

Joseph Saunders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1-12-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This is the initial office action based on the application filled August 19, 2003.

Claims 1 – 20 are currently pending and considered below.

Specification

2. The disclosure is objected to because of the following informalities: On page 3 line 4 the word "one" should be inserted between "than" and "section". On page 8 line 1 the reference letter "X" should be corrected to "V" to match the drawings.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 11 – 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. While the claims fall within at least one of the four categories of patent eligible subject matter recited in 35 U.S.C. 101 (process, machine, manufacture, or composition of matter). The claims are also directed to a judicial exception to 35 U.S.C. 101 (i.e., an abstract idea) and are not directed to a practical application of such judicial exception (e.g., because the claim does not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 – 13, 15, 17, 19, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Konetski (US 2004/0117044 A1), hereinafter Konetski.

Claim 1: Konetski discloses a method for processing audio data (multi-channel media applications support with channel-to-connector mapping, Figures 1 – 6), comprising: presenting a plurality of virtual devices to a user (zones 402, 404, 406, and 408), each of the plurality of virtual devices associated with at least one of a plurality of output channels on a sound card (zones 402, 404, 406, and 408 are associated with output channels of the media card through channel routing logic 115); receiving a selection from the user, the selection being an association of at least one of a plurality of audio data streams (channels 1, 2, 3, and 4) with at least one of the plurality of virtual devices; and outputting the at least one of a plurality of audio data streams from the sound card based on the user's selection (The "media card is user configurable to allow the user to select which media applications will provide audio channels and map the channels to output connectors," "the above system also includes a simple to use user interface (UI)

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to (i) select and initiate processing of multiple streams of audio for playback and (ii) map routing of the audio signals to stereo signal compatible jacks. Each pair of stereo output signals can be associated with a zone of, for example, the living or business space. Each zone can be represented by a UI clearly such that the user can easily direct the desired audio stream to the desired zone," Paragraphs 21 and 22).

Claim 2: Konetski discloses the method of claim 1, wherein presenting includes displaying a list of the plurality of virtual devices (zones 402, 404, 406, and 408) on a graphical user interface (user interface (UI) 400) (Figure 4).

Claim 3: Konetski discloses the method of claim 2, wherein the graphical user interface associates each of the plurality of output channels with at least one of a plurality of jacks on the sound card (The user interface 400 allows for zones 402, 404, 406, and 408 to be selected, the zones provide instructions to the channel routing logic 115, therefore allowing channel routing logic to route the output channels of the media card to the output jacks 302, 304, and 306.) (Paragraphs 27 and 31, Figures 4 and 5).

Claim 4: Konetski discloses the method of claim 2, wherein the graphical user interface associates each of the plurality of output channels with at least one of a plurality of audio devices external to the sound card (UI associates the output channels with speakers external to the sound card) (Figure 5).

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Claim 5: Konetski discloses the method of claim 2, wherein the graphical user interface associates each of the plurality of output channels with at least one of a plurality of geographical locations (zones or kitchen, bedroom, patio, pc sound system) (Figure 4).

Claim 6: Konetski discloses the method of claim 1, wherein receiving includes receiving inputs from the user via a graphical user interface (user interface (UI) 400) (Figure 4).

Claim 7: Konetski discloses the method of claim 1, wherein the each of the plurality of audio streams are associated with one of a plurality of audio applications (The "media card is user configurable to allow the user to select which media applications will provide audio channels and map the channels to output connectors," "the above system also includes a simple to use user interface (UI) to (i) select and initiate processing of multiple streams of audio for playback," Paragraphs 21 and 22).

Claim 8: Konetski discloses the method of claim 1, wherein receiving includes reading an association of at least two audio data streams with a single virtual device (The zones 402, 404, and 408 are associated with stereo output jacks 302, 304, and 306, "each pair of stereo output signals can be associated with a zone," Paragraph 22. Therefore, each virtual device or zone is associated with at least two or stereo data stream).

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Claim 9: Konetski discloses the method of claim 1, wherein outputting includes converting each of the plurality of audio data streams from digital to analog format (digital-to-analog converter (DAC) 114) (Figure 1).

Claim 10: Konetski discloses a system for processing audio data (multi-channel media applications support with channel-to-connector mapping, Figures 1 – 6), comprising: a sound card having (media card) a plurality of output channels (output channels before output jacks 302, 304, and 306); and a graphical user interface (user interface (UI) 400) configured to display a plurality of virtual devices (zones 402, 404, 406, and 408) to a user, each of the plurality of virtual devices representative of at least one of the plurality of output channels on the sound card, the graphical user interface further configured to receive a selection from the user, the selection being an association of each an audio data stream with at least one of the plurality of virtual devices, the sound card coupled to the graphical user interface to receive the user selection and the audio data streams, the sound card further configured to output the audio data stream based on the selection (The "media card is user configurable to allow the user to select which media applications will provide audio channels and map the channels to output connectors," "the above system also includes a simple to use user interface (UI) to (i) select and initiate processing of multiple streams of audio for playback and (ii) map routing of the audio signals to stereo signal compatible jacks. Each pair of stereo output signals can be associated with a zone of, for example, the living or business space. Each zone can

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be represented by a UI clearly such that the user can easily direct the desired audio stream to the desired zone," Paragraphs 21 and 22).

Claim 11: Konetski discloses a processor-readable medium (memory), the processor-readable medium having processor- executable code (instructions), the processor executable-code comprising: code for presenting a plurality of virtual devices (zones 402, 404, 406, and 408) to a user, each of the plurality of virtual devices associated with at least one of a plurality of output channels on a sound card (zones 402, 404, 406, and 408 are associated with output channels of the media card through channel routing logic 115); code for receiving a selection from the user, the selection being an association of at least one of a plurality of audio data streams with at least one of the plurality of virtual devices; and code for outputting the at least one of a plurality of audio data streams from the sound card based on the user's selection (The "media card is user configurable to allow the user to select which media applications will provide audio channels and map the channels to output connectors," "the above system also includes a simple to use user interface (UI) to (i) select and initiate processing of multiple streams of audio for playback and (ii) map routing of the audio signals to stereo signal compatible jacks. Each pair of stereo output signals can be associated with a zone of, for example, the living or business space. Each zone can be represented by a UI clearly such that the user can easily direct the desired audio stream to the desired zone," Paragraphs 11, 21, and 22).

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Claim 12: Konetski discloses a method for processing audio data (multi-channel media applications support with channel-to-connector mapping, Figures 1 – 6), comprising: reading a plurality of audio data streams and a user selection, the user selection being an association of each of the plurality of audio data streams with at least one of a plurality of virtual devices, each of the plurality of virtual devices representative of at least one of a plurality of output channels on a sound card (The “media card is user configurable to allow the user to select which media applications will provide audio channels and map the channels to output connectors,” “the above system also includes a simple to use user interface (UI) to (i) select and initiate processing of multiple streams of audio for playback and (ii) map routing of the audio signals to stereo signal compatible jacks. Each pair of stereo output signals can be associated with a zone of, for example, the living or business space. Each zone can be represented by a UI clearly such that the user can easily direct the desired audio stream to the desired zone,” Paragraphs 21 and 22).

Konetski further discloses “processor 102 causes media channels from media files to be routed via I/O bus 110 to signal processor 108 for processing, such as decoding. I/O bus 110 is, for example, a serial or parallel bus,” Paragraph 26. Since processor 102 routes a plurality of media channels and these channels are sent over a serial connection, some form of multiplexing must occur. Therefore, processor 102 inherently provides instructions for multiplexing the plurality of audio data streams based on the user selection into a multiplexed audio data stream; and signal processor 108 (including DSP 112, DAC 114, and channel routing logic 115) receives the

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instructions for parsing the multiplexed audio stream into a plurality of output data streams, each of the plurality of output data streams being associated with at least one of the plurality of output channels (Paragraph 27).

Claim 13: Konetski discloses the method of claim 12, wherein parsing is based on a predetermined scheme (Parsing is based on the predetermined mapping data provided by the user interface (UI) 120) (Paragraphs 27 and 28).

Claim 15: Konetski discloses a processor-readable medium (memory), the processor-readable medium having processor- executable code (instructions), the processor executable code comprising: code for reading a plurality of audio data streams and a user selection, the user selection being an association of each of the plurality of audio data streams with at least one of a plurality of virtual devices, each of the plurality of virtual devices representative of at least one of a plurality of output channels on a sound card (The "media card is user configurable to allow the user to select which media applications will provide audio channels and map the channels to output connectors," "the above system also includes a simple to use user interface (UI) to (i) select and initiate processing of multiple streams of audio for playback and (ii) map routing of the audio signals to stereo signal compatible jacks. Each pair of stereo output signals can be associated with a zone of, for example, the living or business space. Each zone can be represented by a UI clearly such that the user can easily direct the desired audio stream to the desired zone," Paragraphs 11, 21, and 22); code for multiplexing the

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plurality of audio data streams based on the user selection into a multiplexed audio data stream and code for parsing the multiplexed audio stream into a plurality of output data streams, each of the plurality of output data streams being associated with at least one of the plurality of output channels. (Konetski further discloses "processor 102 causes media channels from media files to be routed via I/O bus 110 to signal processor 108 for processing, such as decoding. I/O bus 110 is, for example, a serial or parallel bus," Paragraph 26. Since processor 102 routes a plurality of media channels and these channels are sent over a serial connection, some form of multiplexing must occur. Therefore, processor 102 inherently provides instructions for multiplexing the plurality of audio data streams based on the user selection into a multiplexed audio data stream; and signal processor 108 (including DSP 112, DAC 114, and channel routing logic 115) receives the instructions for parsing the multiplexed audio stream into a plurality of output data streams, each of the plurality of output data streams being associated with at least one of the plurality of output channels (Paragraph 27)).

Claim 17: Konetski discloses a system for processing audio data (multi-channel media applications support with channel-to-connector mapping, Figures 1 – 6), comprising: a memory (memory 106) having a plurality of audio data records and a user selection (Paragraphs 11 and 25), the user selection being an association of each of the plurality of audio data records with at least one of a plurality of virtual devices (zones 402, 404, 406, and 408), each of the plurality of virtual devices representative of at least one of a plurality of output channels on a sound card (zones 402, 404, 406, and 408 represent

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the output channels of the media card, Figure 5); a first processor (processor 102) coupled to the memory and configured to read the plurality of audio data records and the user selection, the first processor further configured to multiplex the plurality of audio data records based on the user selection into a multiplexed audio data record; and a second processor (signal processor 108) coupled to the memory and configured to parse the multiplexed audio record into a plurality of output data streams, each of the plurality of output data streams being associated with at least one of the plurality of output channels (The "media card is user configurable to allow the user to select which media applications will provide audio channels and map the channels to output connectors," "the above system also includes a simple to use user interface (UI) to (i) select and initiate processing of multiple streams of audio for playback and (ii) map routing of the audio signals to stereo signal compatible jacks. Each pair of stereo output signals can be associated with a zone of, for example, the living or business space. Each zone can be represented by a UI clearly such that the user can easily direct the desired audio stream to the desired zone," Paragraphs 21 and 22. Konetski further discloses "processor 102 causes media channels from media files to be routed via I/O bus 110 to signal processor 108 for processing, such as decoding. I/O bus 110 is, for example, a serial or parallel bus," Paragraph 26. Since processor 102 routes a plurality of media channels and these channels are sent over a serial connection, some form of multiplexing must occur. Therefore, processor 102 inherently provides instructions for multiplexing the plurality of audio data streams based on the user selection into a multiplexed audio data stream; and signal processor 108 (including DSP 112, DAC 114,

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and channel routing logic 115) receives the instructions for parsing the multiplexed audio stream into a plurality of output data streams, each of the plurality of output data streams being associated with at least one of the plurality of output channels (Paragraph 27)).

Claim 19: Konetski discloses the system of claim 17, further comprising an audio codec (DSP 112, DAC 114, and Channel routing logic 115) coupled to the second processor (signal processor 108), the audio codec configured to process the plurality of output data streams and output the processed plurality of data streams to at least one audio device (Paragraph 27).

Claim 20: Konetski discloses the system of claim 19, wherein the audio codec performs digital-to-analog conversion on the plurality of output data streams (digital-to-analog converter (DAC) 114).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 14, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konetski (US 2004/0117044 A1).

Claim 14: Konetski discloses the method of claim 12, but *does not disclose* the system further comprising mixing at least two of the plurality of audio data streams. Konetski does disclose that it is well known in the art for each channel of a multi-channel media application to include one or more audio signals. "For example, a monophonic sound system generally includes a single audio channel containing audio signals that are mixed together," Paragraph 24. Konetski also discloses that the "channel-to-connector mappings utilize a limited number of output jacks," Paragraph 33. Therefore, it would have been obvious to one of ordinary skill in the art to provide the ability to mix at least two of the plurality of audio data streams in the system of Konetski since mixing audio data streams would allow for a plurality of audio data streams greater than the number of output jacks of the system to be simultaneously output on the limited number of output jacks.

Claim 16 and 18: Claims 16 and 18 are substantially similar in scope to claim 14 and therefore are rejected for the same reason.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Saunders whose telephone number is (571) 270-1063. The examiner can normally be reached on Monday - Thursday, 9:00 a.m. - 4:00 p.m., EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JS

February 26, 2007



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SUPERVISORY PATENT EXAMINER